



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

M

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,808	12/10/2003	Chris A. Hopen	PA4407US	8851
22830	7590	10/12/2007	EXAMINER	
CARR & FERRELL LLP 2200 GENG ROAD PALO ALTO, CA 94303			JOO, JOSHUA	
		ART UNIT	PAPER NUMBER	
		2154		
		MAIL DATE	DELIVERY MODE	
		10/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/733,808	HOPEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Joshua Joo	2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 05 September 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 12 July 2004 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                 |                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                            | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|                                                                                                                                                 | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/14/05, 6/01/07, 9/13/07, and 9/19/07 .

***Detailed Action***

**Response to Communication dated 9/05/2007**

1. Claims 1-23 are presented for examination.

**Election Without Traverse Based on Incomplete Reply**

2. Applicant's election of Group I (claims 1-23) in the reply filed on 9/05/2007 is acknowledged. However, Applicant did not explicitly indicate whether the election is made with or without traverse, and Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement. Therefore, the election has been treated as an election without traverse (MPEP §818.03(a)).

**Drawings**

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: In the instant specification on page 9, paragraph 29, "interface 233" is not found in figures. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. In the instant specification on page 7, paragraph 19, figure 1 is described as an example of a conventional network. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d)

Art Unit: 2154

are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Specification**

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### **Information Disclosure Statement**

5. The information disclosure statement (IDS) submitted 4/14/05, 6/01/07, 9/13/07, and 9/19/07 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### **Claim Rejections - 35 USC § 112**

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 7-8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- i) Regarding claim 7, "the access method" lacks sufficient antecedent basis.
- ii) Regarding claim 8, "the at least one platform on another network appliance" lacks sufficient antecedent basis. Claim 1 refers to at least one platform service of a network appliance but not of another appliance.

Art Unit: 2154

- iii) Regarding claim 10, "the cached information" lacks sufficient antecedent basis.

### **Claim Rejections - 35 USC § 102**

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 5, 11-12, 14, 17, 20-21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Neil et al. US Patent #6,128,279 (O'Neil hereinafter).

10. As per claim 1, O'Neil teaches the invention as claimed including a network appliance, comprising:

at least one platform service (col. 5, lines 45. Process request. col. 4, line 65-col. 5, line 6.

Server may be a WWW, CORBA, ORB, SMTP server.);

a load balancing process that performs load balancing on communications received by the network appliance (col. 5, lines 37-47. Load balancing module. Determine whether to process the request.) and

a service monitoring process that monitors a status of the at least one platform service using interprocess communications (col. 6, lines 27-22. Determine load being processed.).

11. As per claim 11, O'Neil teaches the invention as claimed including a network comprising:

a first network appliance having at least one first platform service (col. 5, lines 37-40, 44-45. Servers, e.g. server 9, that process requests.), a first load balancing process that performs load balancing on communications received by the first network appliance (col. 5, lines 37-47. Load balancing module. Determine whether to process the request.), and a service monitoring process that monitors a status of the

Art Unit: 2154

at least one first platform service using interprocess communications (col. 6, lines 27-22. Determine load being processed.); and

    a second network appliance having at least one second platform service (col. 5, lines 37-40, 44-

45. Servers, e.g. server 7, that process requests.) and a second load balancing process that performs load balancing on communications received by the second network appliance (col. 5, lines 37-47. Load balancing module, e.g. module 17. Determine whether to process the request.).

12. As per claim 20, O'Neil teaches the invention as claimed including a method of processing client communications to a network, comprising:

    receiving a first client communications at a first network appliance (col. 5, lines 43-44; col. 6, lines 12-15. Receive request.);

    employing a load balancing service hosted by the first network appliance to direct the first client to a first platform service also hosted by the first network appliance (col. 6, lines 21-33. Determine processing load and process network request.);

    receiving a second client communication at the first network appliance (col. 6, lines 11-14. Network request. It is inherent that a server may receive more than one request. col. 7, lines 40-47. Requests.); and

    employing the load balancing service to direct the second client communications to a second platform service hosted by a second network appliance (col. 7, lines 24-28, 45-50. Route request to another server.).

13. As per claim 2, O'Neil teaches the network appliance recited in claim 1, further comprising a backplane interface through which the network appliance exchanges data with another device (col. 6,

lines 36-43. Modules in servers exchange information. fig. 3; col. 7, lines 47-50. Route request to another server.).

14. As per claim 3, O'Neil teaches the network appliance recited in claim 2, wherein the another device hosts at least one second platform service (col. 5, lines 37-40, 44-45. Servers, e.g. server 7, that process requests. col. 4, line 65-col. 5, line 6. Server may be a WWW, CORBA, ORB, SMTP server.), and

the service monitoring process monitors a status of the second platform service using communications transmitted over the backplane (col. 6, lines 36-44. Determine load of other servers.).

15. As per claims 5 and 14, O'Neil teaches the network appliance recited in claim 1, wherein the at least one platform service is an access method service (col. 4, line 65-col. 5, lines 6. Servers may be a WEB, FTP, or SMTP server, which would provide WEB, FTP, or SMTP services.).

16. As per claim 12, O'Neil teaches the network recited in claim 11, wherein the second network appliance further includes a second service monitoring process that monitors a status of the at least one second platform using interprocess communications (col. 5, lines 37-47; col. 6, lines 18-22. Servers comprise load balancing modules. Determine whether to process the request.).

17. As per claim 17, O'Neil teaches the network recited in claim 11, wherein the at least second platform service is an access method service (col. 4, line 65-col. 5, lines 6. Servers may be a server that provides WEB, FTP, SMTP services.).

Art Unit: 2154

18. As per claim 21, O'Neil teaches the method recited in claim 20, further comprising: analyzing the first client communications to determine if the first client communications includes association data indicating that the first client communication is associated with the first platform service; and determining that the first client communication includes association data indicating that the first communications is associated with the first platform service. (col. 4, line 66-col. 5, line 6. Servers may be WWW, CORBA, FTP, SMTP servers. col. 6, lines 12-15, 29-32. Request is processed, and server outputs a response. For the request to be properly processed or service the request, it is inherent that the request comprises information indicating what service is being requested or associated with the request, e.g. http get request, email transmission.)

19. As per claim 23, O'Neil teaches the method of claim 20, further comprising:  
executing a load balancing algorithm to determine whether the second client communication should be directed to the second platform service (col. 6, lines 11-14. Network request. It is inherent that a server may receive more than one request. col. 7, lines 40-47. Requests. col. 6, lines 21-24, 36-41. Determine load and the loads of other servers.); and  
determining that the second client communications should be directed to the second platform service based upon results of the executed load balancing algorithm (col. 7; lines 1-3, 21-25. Determine load and online status to route requests. col. 7, lines 24-28, 45-50. Route request to another server.).

#### Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2154

21. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Rao, US Patent #6,789,118 (Rao hereinafter).

22. As per claim 4, O'Neil does not specifically teach the network appliance recited in claim 1, further comprising an interface monitoring process that monitors a status of interfaces and connections employed by the network appliance.

Rao teaches of a network appliance (switch) monitoring the state of links and ports employed by the network appliance (col. 8, lines 10-20, 24-29).

23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Rao to monitor the status of links and ports employed by the network appliance. The motivation for the suggested combination is that Rao's teachings would provide additional monitoring to determine whether a network device can properly provide service to clients and allow a network device to recover from detected equipment faults and links failures.

24. Claims 6-7, 15-16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Shanumgam et al. US Patent #7,032,022 (Shanumgam hereinafter).

25. As per claims 6 and 15, O'Neil does not specifically teach the network appliance in claim 5, wherein the access method service is a private network service.

Shanumgam teaches of a network device providing VPN service (fig. 1, 17; col. 4, lines 34-39; col. 5, lines 37-43; col. 14, lines 35-39).

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Shanumgam for the server to provide VPN service. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with

different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to implement servers that provide VPN service. Shanumgam's teachings would provide secure communications on a public network.

27. As per claims 7 and 16, O'Neil does not specifically teach the network appliance in claim 1, wherein the access method is an extranet Web service.

Shanumgam teaches of a network device providing extranet Web services (fig. 1; col. 4, lines 34-39; col. 5, lines 37-43; col. 6, lines 9-13. VPN service to connect to a public network).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Shanumgam for the server to provide extranet Web services. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to implement servers that provide extranet Web services. Shanumgam's teachings would provide secure communications on a public network.

29. As per claim 18, O'Neil does not specifically teach the network in claim 17, wherein the access method service is a private network service.

Shanumgam teaches of a network device providing VPN service (fig. 1, 17; col. 4, lines 34-39; col. 5, lines 37-43; col. 14, lines 35-39).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Shanumgam for the server to provide VPN service. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to

Art Unit: 2154

implement servers that provide VPN service. Shanumgam's teachings would provide secure communications on a public network.

31. As per claim 19, O'Neil does not specifically teach the network in claim 17, wherein the access method is an extranet Web service.

Shanumgam teaches of a network device providing extranet Web services (fig. 1; col. 4, lines 34-39; col. 5, lines 37-43; col. 6, lines 9-13. VPN service to connect to a public network).

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Shanumgam for the server to provide extranet Web services. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to implement servers that provide extranet Web services. Shanumgam's teachings would provide secure communications on a public network.

33. Claims 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Le et al. US Patent #6,145,089 (Le Hereinafter).

34. As per claim 8, O'Neil does not specifically teach the network appliance recited in claim 1, further comprising a node manager process that monitors an operational status of the at least one platform service and provides a determined operational status of the at least one platform service to the service monitoring process.

Le teaches of a server comprising a server manager that monitors the operational status of a service and indicates the operational status to another manager (col. 7, lines 32-46; col. 8, lines 43-46. Monitor functioning of the service or service group. Observe service failure.).

Art Unit: 2154

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Le for a manager to monitor the operational status of a service and indicate the operational status to a load balancing module in O'Neil. The motivation for the suggested combination is that Le's teachings would improve reliability by allowing servers to fail over services to other servers and allowing request distribution based on factors in addition to the load capacity.

36. Claims 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Jordan et al. US Patent #6,438,652 (Jordan hereinafter).

37. As per claim 9, O'Neil does not specifically teach the network appliance in claim 1, further comprising a distributed cache service that caches information relating to the at least one platform on another network appliance.

Jordan teaches of a server comprising a distributed cache service, wherein the server caches information relating to another server (col. 4, lines 14-19; col. 7, lines 43-51. Send a copy of cached object p to a cache server.)

38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Jordan for the server to comprise a distributed cache service, wherein the server caches information relating to another server. The motivation for the suggested combination is that Jordan's teachings would provide distributed load balancing of cached information, and retrieving information from caches would reduce the time required to service requests.

39. Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Kakemizu et al., US Patent #7,068,640 (Kakemizu hereinafter).

Art Unit: 2154

40. As per claim 10, O'Neil does not specifically teach the network appliance recited in claim 1, wherein the at least one platform service is an access method service; and the cached information includes authentication information and encryption key information for encryption sessions hosted by the access method service.

Kakemizu teaches of an ISP (server) providing VPN services, wherein the server comprises cached information that includes authentication information and encryption key information for encryption sessions hosted by the service (fig 7. col. 7, line 58-col. 8, line 17. VPN information profile comprises identifiers, authentication, encryption keys.).

41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Kakemizu to implement a server providing a VPN service and comprising cached information that includes authentication information and encryption key information for encryption sessions hosted by the service. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to implement servers that provide VPN services. Kakemizu's teachings would provide secure network communications and also reduce the time required to process requests.

42. As per claim 22, O'Neil does not specifically teach the method of claim 21, wherein the association data is a session identifier identifying an encryption session maintained by the first platform service.

Kakemizu teaches of providing a session id identify an encryption session maintained by a service provider (col. 7, line 58-col. 8, line 17).

Art Unit: 2154

43. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Kakemizu to implement a server providing a VPN service and provide a session id identify an encryption session maintained by the server. The motivation for the suggested combination is that O'Neil teaches that the invention can be used with different types of servers, and in this case, it would have been obvious to one of ordinary skill in the art to implement servers that provide VPN services. Kakemizu's teachings would provide secure network communications and allow the server to retrieve a client VPN profile to set a VPN path.

44. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil, in view of Brendel et al. US Patent #5,774,660 (Brendel hereinafter).

45. As per claim 13, O'Neil suggests of a first server (first network appliance) receiving all communications (fig. 3. server 7). O'Neil does not specifically teach the network recited in claim 11, wherein the first network appliance is configured to receive all client communications to the network unless the first load balancing process fails; and the second network appliance is configured to receive all client communications to the network if the first load balancing process fails.

Brendel teaches of a primary load balancer receiving all packets to the network, and a second network load balancer is configured to receive all packets to the network if the first load balancer process fails (claim 14; col. 19, lines 9-14).

46. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of O'Neil and Brendel for the first server comprising a load balancing module as taught by O'Neil to receive all packets to the network and for a second device, such as a second server in O'Neil, to receive all packets to the network if the first load balancing module fails. The motivation for

Art Unit: 2154

the suggested combination is that Brendel's teachings would allow continued load balancing of communications with other servers in the network to prevent overloading.

**Conclusion**

NATHAN FLYNN  
PATENT EXAMINER

47. A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.
48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo whose telephone number is 571 272-3966. The examiner can normally be reached on Monday to Thursday 8AM to 5PM and every other Friday.
49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on 571 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
50. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 8, 2007  
JJ